

AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A semiconductor device comprising:
a wide-gap bipolar semiconductor element using a wide-gap semiconductor and having a built-in voltage in the forward direction,
a semiconductor package accommodating said wide-gap bipolar semiconductor element and having electrical connection means for connecting said wide-gap bipolar semiconductor element to external apparatuses, and
heating means for ~~keeping~~ heating said wide-gap bipolar semiconductor element inside said semiconductor package at a ~~predetermined temperature higher than ordinary temperature~~ a temperature of 125°C or more.

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Currently Amended) A semiconductor device in accordance with claim 1, wherein said heating means heats said wide-gap bipolar semiconductor element to a predetermined temperature higher than ~~[[50°C]]~~ 125°C in advance before the start of the operation of said wide-gap bipolar semiconductor element.

6. (Canceled)

7. (Currently Amended) A semiconductor device in accordance with claim 1, wherein said heating means is an electric heater provided ~~to give heat~~ said wide-gap bipolar semiconductor element.

8. (Currently Amended) A semiconductor device in accordance with claim 1, wherein said heating means is a heat sink that raises the temperature of said wide-gap bipolar semiconductor element to 125°C or more by controlling ~~[[the]]~~ a radiation of heat generated when said wide-gap bipolar semiconductor element is energized.

9. (Canceled)

10. (Currently Amended) A semiconductor device in accordance with claim 1, wherein said semiconductor package has a temperature sensor for detecting the temperature of said wide-gap bipolar semiconductor element and a temperature controller that keeps the temperature of said wide-gap bipolar semiconductor element at ~~said predetermined temperature~~ the temperature of 125°C or more on the basis of ~~[[the]]~~ a detection output of said temperature sensor.

11. (Previously Presented) A semiconductor device in accordance with claim 1, wherein said wide-gap bipolar semiconductor element is either a diode having a pn junction or a self-excited thyristor.

12-16. (Canceled)

17. (New) A semiconductor device in accordance with Claim 1, wherein the wide-gap semiconductor of said wide-gap bipolar semiconductor element has stacking faults.

18. (New) A semiconductor device comprising:
a wide-gap bipolar semiconductor element using a wide-gap semiconductor and having a built-in voltage in the forward direction,

a semiconductor package accommodating said wide-gap bipolar semiconductor element and having electrical connection means for connecting said wide-gap bipolar semiconductor element to external apparatuses,

heating means for heating said wide-gap bipolar semiconductor element inside said semiconductor package at a temperature of 125°C or more,

a temperature sensor for detecting the temperature of said wide-gap bipolar semiconductor element, and

a temperature controller that keeps the temperature of said wide-gap bipolar semiconductor element at the temperature of 125°C or more on the basis of a detection output of said temperature sensor.